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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,406

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Michael B. Biscoglio

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UNION CARBIDE CHEMICALS AND PLASTICS TECHNOLOGY  
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EXAMINER

LEE, RIP A

ART UNIT

PAPER NUMBER

1796

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/561,406

Applicant(s)

BISCOGLIO ET AL.

Examiner

Rip A. Lee

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 2, 6-8, 10 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 11-17, 21, and 22 of copending Application No. 10/561,210. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to substantially the same composition comprising silane-functionalized olefinic polymer, acidic silanol condensation catalyst, and antioxidant not having a tertiary alkyl-substituted aryl or phenolic group.

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3. Claims 1-15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 11/817,245. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to substantially the same composition comprising silane-functionalized olefinic polymer, acidic silanol condensation catalyst, and antioxidant not having a tertiary alkyl-substituted aryl or phenolic group.

These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

#### *Claim Objections*

4. Claims 2 and 13 are objected to because of the following informalities: It appears that the claims should recite "alpha-olefins or unsaturated esters." As recited, the copolymer must contain one of each component. Appropriate correction is required.

5. Claim 6 is objected to because of the following informalities: Please replace "dodecylbenzyl" with "dodecylbenzene." Appropriate correction is required.

6. Claim 7 is objected to because of the following informalities: Please replace "dinonylnaphthyl" with "dinonylnaphthalene." Appropriate correction is required.

7. Claims 8 and 13 are objected to because of the following informalities: It appears that antioxidants of group (c) are phosphite-based rather than phosphate-based. Appropriate correction is required.

8. Claim 10 is objected to because of the following informalities: Please replace "benzylidene" with "benzylidene." Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1, 2, 8, and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Lorigan *et al.* (EP 365 289).

Lorigan *et al.* teaches a water-crosslinkable composition comprising a silane copolymer prepared by copolymerization of a vinylsilane with alpha-olefin, dibutyltin maleate organometallic silanol condensation catalyst, Irganox 1010, Irganox 1035, and distearyl thiodipropionate (examples). The term "acidic" is generic and since dibutyltin maleate contains Lewis acidic maleate groups, the cited compound reads on the claimed compound. The stabilizer, distearyl thiodipropionate, does not contain a tertiary alkyl-substituted aryl or phenolic group. Since the term "comprising" in the preamble does not exclude those antioxidants that contain tertiary alkyl-substituted aryl or phenolic groups, the subject matter of the instant claims is anticipated by Lorigan *et al.* The reference does not disclose the properties recited in instant claims 1, 11, and 13-15, however, in light of the fact that the composition of the prior art is substantially the same as that described in the instant claims, a reasonable basis exists to believe that the composition of the prior art exhibits substantially the same properties. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. *In re Fitzgerald*, 619 F.2d. 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112-2112.02. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

13. Claims 1-6, 8, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dammert *et al.* (U.S. 6,005,055) in view of Maringer *et al.* (U.S. 4,343,733).

Dammert *et al.* teaches a crosslinkable composition containing a crosslinkable polymer with hydrolyzable silane groups and at least one silanol condensation catalyst of formula  $\text{ArSO}_3\text{H}$  (claim 1). Inventive compositions are especially useful for cable insulation (col. 2, lines 12-24). The silane containing polymer is obtained by copolymerization of an olefin with an unsaturated silane (col. 3, lines 64-66, col. 4, lines 30-58), although graft polymers may be utilized (col. 4, lines 59-61). Dodecyl benzene sulfonic acid is the catalyst of choice (examples). Incorporation of conventional additives is contemplated (col. 5, line 66), however, Dammert *et al.* is silent with respect to these materials.

The prior art of Mariner *et al.* relates to use of additives for prevention of deterioration in polyolefin-based cable insulation compositions (col. 1, lines 36-43 and line 59 to col. 2, line 8). The reference teaches that cable insulation preferably contains oxalyl *bis*(benzylidenehydrazide) as a copper inhibitor. One of ordinary skill in the art would recognize that insulation in contact with copper, which catalyzes deterioration of the insulation, the need for incorporation of a copper inhibitor, and therefore, it would have been obvious to one of ordinary skill in the art to use oxalyl *bis*(benzylidenehydrazide) in the composition of Dammert *et al.* in order to prevent deterioration of the insulation material from exposure to copper wire. The combination of teachings is obvious since both relate to cable insulation compositions.

Dammert *et al.* does not disclose the properties recited in instant claims 1, 11, and 13-15, however, in light of the fact that the composition of the prior art is substantially the same as that described in the instant claims, a reasonable basis exists to believe that the composition of the prior art exhibits substantially the same properties. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

14. Claims 1-5, 7, 8, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blank *et al.* (U.S. 6,441,097) in view of Maringer *et al.* (U.S. 4,343,733).

Blank *et al.* discloses crosslinkable polymer compositions comprising an alkoxysilane functional polyolefin and a silanol crosslinking a catalyst that is an alkylated naphthalene sulfonic acid substituted with 1-4 alkyl groups containing 5-20 carbon atoms (claim 1). Although the reference shows the preferred embodiment of using zinc dinonylnaphthalene sulfonate, it would have been obvious to one having ordinary skill in the art to the corresponding free acid, dinonylnaphthalene sulfonic acid as the condensation catalyst because Blank *et al.* teaches that alkylated naphthalene sulfonic acids are also useful catalysts. One having ordinary skill in the art would have found it obvious to use dinonylnaphthalene sulfonic acid especially in light of the fact that the zinc salt is exemplified.

Blank *et al.* does not describe further details on use of additives for the inventive compositions, however, one of ordinary skill in the art learns from the patent that these compositions have end use as coatings for electrical cables and wires (col. 1, lines 40-42). In this connection, one having ordinary skill in the art would have recognized that such compositions are exposed to copper wire.

The prior art of Mariner *et al.* relates to use of additives for prevention of deterioration in polyolefin-based cable insulation compositions (col. 1, lines 36-43 and line 59 to col. 2, line 8). The reference teaches that cable insulation preferably contains oxalyl *bis*(benzylidenehydrazide) as a copper inhibitor. One of ordinary skill in the art would recognize that insulation in contact with copper, which catalyzes deterioration of the insulation, the need for incorporation of a copper inhibitor, and therefore, it would have been obvious to one of ordinary skill in the art to use oxalyl *bis*(benzylidenehydrazide) in the composition of Blank *et al.* in order to prevent deterioration of the insulation material from exposure to copper wire. The combination of teachings is obvious since both relate to cable insulation compositions.

Blank *et al.* does not disclose the properties recited in instant claims 1, 11, and 13-15, however, in light of the fact that the composition of the prior art is substantially the same as that described in the instant claims, a reasonable basis exists to believe that the composition of the prior art exhibits substantially the same properties. Since the PTO can not conduct experiments, the burden of proof is shifted to the Applicants to establish an unobviousness difference. Since the PTO can not perform experiments, the burden is shifted to the Applicants to establish an unobviousness difference. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).



***Information Disclosure Statement***

15. An international search report accompanies this application. Sanchez *et al.* (EP 862 187; equivalent U.S. 5,955,525) was cited as an "X" reference, whereby aluminum trihydrate (flame retardant) and fatty acid (slip agent) were indicated as condensation catalyst. Compositions of the prior art contain a minor amount of vinyltrimethoxysilane, which may be grafted onto the polymer upon reaction with peroxide. It is this examiner's position that aluminum trihydrate and fatty acid do not meet the description acidic condensation catalyst, even under the most liberal of interpretation, as understood by one of ordinary skill in this field of endeavor, or by any polymer art. Therefore, it is deemed that the instant claims are patentably distinct over Sanchez *et al.*

Maringer *et al.* (U.S. 4,343,733) was also cited as an "X" reference. No disclosure of use of acidic condensation catalyst could be located in the document. Lack of description in the search report corroborates this notion. As such, the instant claims are patentably distinct over Maringer *et al.*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu S. Jagannathan, can be reached at (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



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October 30, 2007